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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/817,424	04/02/2004	Kenneth Yuen	30932.7US01	1297

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EXAMINER

VO, ANH T N

ART UNIT	PAPER NUMBER
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2861

DATE MAILED: 03/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

2)

Office Action Summary	Application No. 10/817,424	Applicant(s) YUEN, KENNETH	
	Examiner Anh T.N. Vo	Art Unit 2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-24, 28 and 29 is/are rejected.
- 7) ☒ Claim(s) 25-27 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/6/04 & 9/01/05</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Information Disclosure Statement

The references cited on PTO 1449 have been considered.

Informal Drawing

This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

Claim Objections

Claims 1-2 and 16 are objected to because of the following informalities:

In claim 1:

- line 4, "cartridge" should be changed to --container--.

In claim 2:

- line 2, "a" should be changed to --the-- .

In claim 16:

- line 9, "an" should be changed to --a--.

- line 11, "the" should be changed to --an--.

Appropriate correction is required.

CLAIM REJECTIONS

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

The person shall be entitled to a patent unless-

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 24 is rejected under 35 USC 102 (e) as being anticipated by Ota et al. (US Pat. 6,786,583).

Ota et al. disclose in Figures 5, 8 and 10 an ink cartridge storage structure comprising:

- a package (92);
- an ink container (1) positioned in the package (92),
- the ink container (1) including an internal ink tank (11, 16, 17), a drain conduit (18), a vent conduit (67), and a pressure varying member (8, 501), the drain conduit (4) being in ink flow communication with the internal ink tank (11, 16, 17), the vent conduit (67) being in air flow communication with the internal ink tank, the pressure varying member (8, 501) being configured to alter a pressure condition within the internal ink tank (Figures 5 and 8).

Claim 29 is rejected under 35 USC 102 (e) as being anticipated by Inoue et al. (US Pat. 6,773,099).

Inoue et al. disclose in Figures 40 and 49 an ink container comprising:

- a drain conduit (524);
- a vent member (517);
- a plastic ink container (540) having at least one internal ink tank (540A); and

- a deformable air bladder (551) in fluid communication with the internal ink tank (540A), the air bladder (551) forming an actuating surface accessible at an exterior of the ink container (540), wherein the actuating surface can be manually engaged to compress the air bladder (551) and vary the pressure in the ink tank (540) to initiate the flow of ink.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior arts are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 7-11, 13-17, 22-23, 28 and are rejected under 35 USC 103 (a) as being anticipated Yuen (US Pat. 6,347,863) in view of Barinaga et al. (US Pat. 6,478,415).

Note: The method steps are inherently taught in the apparatus device/limitations in the rejections as follow:

Yuen discloses in Figures 1-7 an apparatus for refilling an ink cartridge comprising:

- ink container (50) configured to be coupled to the ink cartridge (14), the ink container defining at least one internal ink tank (64) (Figure 3);
- a drain conduit (74) extending between the internal ink tank (64) of the ink container (50) and the ink chamber (20) of the printer ink cartridge (14) (Figure 3);
- a vent member (84) (figure 3);
- wherein the ink container (50) includes a plurality of internal ink tanks (60, 62, 64), each ink tank being fitted with drain and vent conduits (Figure 3); and
- wherein the vent member (82) includes a vent conduit extending between the internal ink

tank(64) of the ink container (50) and the ink chamber (20) of the printer ink cartridge (14) (Figure 3).

However, Yuen does not disclose a pressure varying means that is configured to alter a pressure condition in the internal ink tank of the ink container thereby creating ink flow in the drain conduit into an printer ink cartridge; wherein the pressure varying means is a pump; wherein the pressure varying means is a pliable portion of a wall of the ink container; the pressure varying means increases pressure in the ink tank; wherein the pump is mounted to an exterior surface of the ink container; and wherein the pump includes a button shaped actuating member that can be depressed to initiate ink flow.

Barinaga et al. disclose in Figures 1-2b an ink refillable system comprising:

- a pressure varying means (116) configured to alter a pressure condition in the internal ink tank (124) of the ink container (110) thereby creating ink flow in the drain conduit (130, 131, 144) into an printer ink cartridge (14) (column 4, lines 50-55);
- wherein the pressure varying means is a pump (116) (column 4, lines 50-52);
- wherein the pressure varying means is a pliable portion (126) of a wall of the ink container (110); (Figures 2a-2b);
- the pressure varying means (a pump 116 at a position 116a for increasing pressure in a pressure chamber 126) increases pressure in the ink tank (110) (column 4, lines 56-60);
- wherein the pump (116) is mounted to an exterior surface of the ink container (110) (Figure 2a); and
- wherein the pump (116) includes a button shaped actuating member (T shape that is actuated on element 126) that can be depressed to initiate ink flow (Figures 2a-2b).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to incorporate the teaching of Barinaga et al. in the Yuen apparatus for the purpose of providing a pump to activate a fluid reservoir to pump fluid to an printer ink cartridge through a fluid path.

Claims 6 and 12 and are rejected under 35 USC 103 (a) as being anticipated Yuen (US Pat. 6,347,863) in view of Barinaga et al. (US Pat. 6,478,415) as applied to claims 1 and 8 and further in view of Aono et al. (US Pat. 5,453,772).

Yuen in view of Barinaga discloses the basic features of the claims invention were stated above but do not disclose the pressure varying means is a deformable air bladder.

Aono et al. disclose in Figures 1-2 an ink jet head cartridge (100) comprising an ink tank (120) storing ink and the pressure varying means (140) is a deformable air bladder (column 3, lines 6-21).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to incorporate the teaching of Aono et al. in the Yuen apparatus, as modified, for the purpose of providing an air bag in a housing of an ink tank which is capable of supplying ink to a recording head when the volume of the air bag expanding in the housing.

Claims 18-21 are rejected under 35 USC 103 (a) as being anticipated Yuen (US Pat. 6,347,863) in view of Barinaga et al. (US Pat. 6,478,415) as applied to claim 17 and further in view of Ito (US Pat. 6,053,603).

Note: The method steps are inherently taught in the apparatus device/limitations in the rejections as follow:

Yuen in view of Barinaga discloses the basic features of the claims invention were stated above but do not disclose steps of mounting the printer ink cartridge in a base member; opening refill holes into the housing interior of the printer ink cartridge; a foam drill inserting into the refill holes and engaging the foam within the housing interior with the foam drill; and wherein coupling the at least one ink reservoir in ink flow communication includes extending an ink conduit between the ink reservoir and the ink chamber of the ink cartridge.

Ito discloses in Figures 1-5d device for refilling an ink cartridge comprising:

- mounting the printer ink cartridge (200 or 200') in a base member (20 or 120);
- opening refill holes (204) into the housing interior of the printer ink cartridge (200);
- a foam drill (an appropriate tool not shown, column 4, lines 48-54) inserting into the refill holes and engaging the foam (202) within the housing interior with the foam drill; and
- wherein coupling the at least one ink reservoir (210) in ink flow communication includes extending an ink conduit (40) between the ink reservoir (210) and the ink chamber of the ink cartridge (200) (Figures 1-5d).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to incorporate the teaching of Ito. in the Yuen apparatus, as modified, for the purpose of forming an empty space in the ink absorbing material (202) of the ink cartridge (200) so that an ink transfer conduit (40) remains inside the empty space.

Claim 24 is rejected under 35 USC 103 (a) as being anticipated Yuen (US Pat. 6,347,863) in view of Barinaga et al. (US Pat. 6,478,415) and Ota et al. (US Pat. 6,786,583).

Yuen discloses in Figures 1-7 an apparatus for refilling an ink cartridge comprising:

- ink container (50) configured to be coupled to the ink cartridge (14), the ink container defining at least one internal ink tank (64) (Figure 3);
- a drain conduit (74) extending between the internal ink tank (64) of the ink container (50) and the ink chamber (20) of the printer ink cartridge (14), the drain conduit being in ink flow communication with the internal ink tank (64) (Figure 3);
- a vent member (84) being in air flow communication with the internal ink tank (64) (Figure 3); and
- wherein the vent member (82) includes a vent conduit extending between the internal ink tank (64) of the ink container (50) and the ink chamber (20) of the printer ink cartridge (14) (Figure

3).

However, Yuen does not disclose a pressure varying means that is configured to alter a pressure condition in the internal ink tank of the ink container thereby creating ink flow in the drain conduit into a printer ink cartridge and an ink container positioned in a package.

Barinaga et al. disclose in Figures 1-2b an ink refillable system comprising a pressure varying means is a pump (116) and configured to alter a pressure condition in the internal ink tank (124) of the ink container (110) thereby creating ink flow in the drain conduit (130, 131, 144) into an printer ink cartridge (14) (column 4, lines 50-55).

Ota et al. disclose in Figure 10 an ink cartridge storage structure comprising an ink container (1) positioned in a package (92).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to incorporate the teaching of Barinaga et al. and Ota et al. in the Yuen apparatus for the purpose of providing a pump to activate a fluid reservoir to pump fluid to an printer ink cartridge through a fluid path and storing the printer ink cartridge by a package.

Citation of Pertinent Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art references (US Pat. 4,723,688; US Pat. 6,951,388) cited in the PTO 892 form show a fluid supply system that is deemed to be relevant to the present invention. These references should be reviewed.

Allowable Subject Matter


Claims 25-27 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims. These claims would be allowable because none of the prior

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art references of record discloses an ink cartridge refill kit comprising a printer ink cartridge carrying base that positioned within a package, the printer ink cartridge carrying base being configured to retain a printer ink cartridge to be refilled with ink from an ink container in the combination as claimed.

CONCLUSION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Anh Vo whose telephone number is (571) 272-2262. The examiner can normally be reached on Tuesday to Friday from 9:00 A.M. to 7:00 P.M.. The fax number of this Group 2861 is (571) 273-8300.


ANH T.N. VO
PRIMARY EXAMINER
February 22, 2006